Amendments to the Specification

Please replace the paragraph previously inserted at page 2 with the following amended paragraph:

-- In accordance with a third aspect of the present invention, there is provided a receiver for use in a broad bandwidth, high data rate communications system, in which ~~transmitted~~ signals for transmission are divided into a plurality of sub-band signals ~~sub-bands~~ and converted using, for each sub-band signal, a respective one of a plurality of Inverse Fast Fourier Transforms (IFFTs), then combined for transmission, the receiver having:

means for receiving a combined plurality of sub-band signals and separating [[a]] the plurality of sub-band signals [[in]] into said corresponding plurality of sub-bands;

and means for performing Fast Fourier Transform upon the received sub-band signals individually using, for each sub-band signal, a respective one of a plurality of different FFTs corresponding to the IFFTs. --

Please replace the previously-amended paragraph beginning at page 3, line 26 with the following amended paragraph:

-- Figure 3 shows one implementation of ~~data transmission~~ transmitter according to one aspect of the invention, where the total frequency band (B) is divided into M sections each with bandwidth $B_S = B/M$ and K of M sub-bands which contain non-zero signal are to be transmitted. In Figure 3, the signal is first modulated in individual bands and then an N/M point IFFT is applied to each individual band to get the time domain sub-band signal for that band. ~~The~~ Each time domain sub-band signal is ~~further~~ then upsampled to the desired sampling rate and a bandpass filter is applied to put each sub-band signal into the right location in the total frequency band (see Figures 5B to 5D) The sub-band signals then are combined by a summer to form SIGNAL OUT for transmission. The receiver shown in Figure 4 is the reverse operation of the transmitter shown in Figure 3.

The received signal SIGNAL IN corresponds to the transmitted signal SIGNAL OUT and so comprises combined sub-band signals. [[It]] The signal SIGNAL IN is first filtered by the filters FILTER 1, FILTER 2 ... FILTER K to separate the sub-band signals into individual bands BAND 1, BAND 2 ... BAND K, respectively, and then each sub-band signal is down sampled. N/M point FFT is applied to each sub-band signal and data is retrieved using QAM demodulation. --